

STATE OF COLORADO

Bill Ritter, Jr., Governor
James B. Martin, Executive Director

Dedicated to protecting and improving the health and environment of the people of Colorado

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Colorado Department
of Public Health
and Environment

September 6, 2007

Tom Haren
Agprofessionals, LLC
4350 Highway 66
Longmont, CO 80504

RE: Comments on the Revised Design and Operations Plan
 StroMo Composting Facility
 Weld County

Dear Mr. Haren:

The Colorado Department of Public Health and Environment, Hazardous Materials and Waste Management Division (Division) has reviewed the revised Design and Operations Plan (Plan) for the above referenced facility. The Plan was submitted by AgProfessionals and is dated May 15, 2007 and was received in our office on May 30, 2007. The current D&O plan is dated December 23, 2003 and was approved on January 22, 2004. The revised Plan is being reviewed for compliance with the state's solid waste regulations 6 CCR 1007-2 and specifically Section 14 (composting regulations). Below are the Division's preliminary comments regarding the Plan.

General Comments

1. Stromo has been approved as a Class I compost facility. For clarification, please remove the term "proposed" Class I facility throughout the document.
2. A Notice of Authorization from the Department's Water Quality Control Division is required prior to acceptance of biosolids. In addition to the requirements of the composting regulations (Section 14), compliance with the Colorado's Biosolids Regulation, #64 (5 CCR 1002-64) is also required for biosolids composting. If you have specific questions regarding the biosolids regulations or the process for obtaining a Notice of Authorization contact Rick Kopitz (303) 692-3618.
3. Financial assurance closure and post closure cost estimates shall be revised, where appropriate, to reflect additional feedstocks and/or wetting agents accepted by this facility, amended groundwater parameters, operational changes, and storage of bulking material.
4. In numerous sections of the Plan it states "all raw materials other than animal manure will be introduced into the composting process within 24 hours." Although the 24 hour incorporation time may be appropriate for some feedstocks and wetting agents, certain feedstocks and/or wetting agents depending on their physical and/or chemical composition may require immediate incorporation into the compost process to prevent nuisance conditions. Incorporation of manure within 72 hours is conditional based on the absence of nuisance conditions. If nuisance conditions arise within the 72-hour storage time, manure shall be incorporated into the compost process immediately.
5. It was our understanding that the facility anticipates accepting biosolids in the near future and this revised D&O plan would address specific procedures for managing this waste stream. If Stromo is proposing acceptance of biosolids, then additional information is needed such as management of biosolids upon receipt, biosolids compost recipe, where and how will biosolids be mixed (mixing basin), odor management-especially ammonia, and appropriate sampling procedures.

Specific Comments

1. Page 11: Add "feedstock and wetting agent profiling data" to the list of applicable operating records maintained by the facility.
2. Page 12: The existing groundwater quality parameters are based on the facility's currently accepted feedstocks. Depending on future types of feedstocks and/or wetting agents accepted, the Division may require additional parameters be included in the facility's groundwater monitoring program. These changes will also impact any closure and post closure sampling analytical suites.
3. Page 14: The fourth sentence from the top of the page should be modified for clarity to read " With specific Department and County approval the facility may compost feedstock and wetting agent materials appropriate for a Class I compost facility."
4. Page 14: Shipping Receiving Procedures: Waste profiling procedures must be developed to ensure feedstocks and wetting agents do not contain hazardous or prohibited constituents. Each generator of wetting agents and atypical feedstocks (e.g industrial sludges) shall submit a waste profile prior to the initial receipt of the waste. Annually, the generator shall provide a statement that their waste processes and/or feedstocks have not changed and every three years resubmit a waste profile.
6. Page 15: The Plan indicates that prior to acceptance of liquids or semisolids a concrete or other suitable mixing pad shall be constructed. It is our understanding that the facility anticipates the acceptance of biosolids in the near future, which would require a mixing pad to process this material. Design drawings and construction specifications were not provided with the revised Plan. To facilitate our review of the document please provide this information. These plans and specification must be approved prior to construction and the receipt of biosolids.
7. Page 15: The Plan indicates truck washing will occur adjacent to the storm water retention pond and wash water will be re-used in the composting process. Will wash water flow into the storm water pond? - Wash water from truck washing shall be profiled prior to reuse in the composting process. Please provide an MSDS for the proposed disinfectant. How will potential contaminants (e.g. oil and grease, hydraulic fluid and diesel) from truck washing operations be prevented from entering the wash water?
8. A Colorado Professional Engineer shall stamp and seal the final construction drawings for the truck wash and mixing pad.
9. Page 15: Include in your discussion of "bulking materials" the type and quantity of proposed bulking material. Identify on the facility site map where bulking material be stored? Procedures must be developed to insure bulking materials are "clean" and contain no prohibited waste.
10. Page 15: More detailed information on the composting process is need to evaluate the "recipe(s)" for biosolids, food waste, turkey litter and other anticipated feedstocks or wetting agents to ensure appropriate composting is occurring. Include information on C:N ratios, moisture content, mixing ratios and other variables.
11. Page 18: The Plan identifies one option for managing storm water from the retention pond is to apply the liquid to adjacent agricultural fields. Depending on feedstocks or wetting agents accepted by the facility, testing storm water for constituents of concern may be necessary prior to land application. If pesticides/herbicides are used on site for vector or weed control, storm water must be tested for these constituents prior to onsite or offsite reuse. The land application of storm water may trigger the need for a Groundwater Discharge Permit from the Department's Water Quality Control Division. Please contact Gary Beers for more information, 303.692.3524.
12. Page 21, Removal of Compost Debris from Surface Soils in Windrow Areas: This paragraph discusses the use of the compost "hard pan", the compacted soils under the windrows and working areas, on site or removed from site and incorporated into adjacent fields. These soils shall be tested for constituents of concern prior to onsite or offsite use. Please submit a soil sampling plan to address appropriate characterization of the compost hard pan.
13. Page 21: Depending on feedstocks or wetting agents accepted by the facility, testing residual soils, from the storm water retention pond for constituents of concern will be required prior to land application.
14. Page 22: Depending on type of feedstocks and wetting agents accepted the Division in consultation with Weld County may include additional groundwater monitoring parameters to the list contained in the Plan. The proposed ground water monitoring plan is for five (5) years during the post closure period. The post closure period will be

extended if groundwater impact is present or land use changes alter the protectiveness of the closed facility during the post closure period.

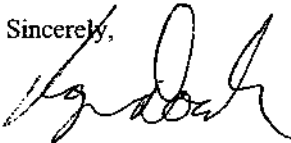
15. Page 24, Offsite Odors: The Plan states "In the event off site odors are detected, composting operations will be evaluated and more frequent turning and or covering of temporary stockpiles with bulking agent will occur." It has been our experience that more frequent turning will exasperate odors during odor generation cycles. Covering with bulking material, finished product or a biofilter can be an effective method to reduce or eliminate many odors. Also, turning windrows during certain times of the day and when metrological conditions are in the facility's favor can be effective in reducing odors.
16. Page 24-25, If pesticides are used to control the fly population, the MSDS information shall be reviewed prior to application and records kept onsite showing date chemical was used, application rate and effectiveness. Depending on the breakdown rate of the pesticide, finished compost and/or stormwater may need to be tested for those constituents prior to offsite distribution.
17. Page 25, Minimize Stockpile Or Storage Of Raw Feedstocks: The last sentence shall be changed to reflect proactive actions taken by the facility during significant fly outbreaks-"Animal manure will be incorporated immediately during heighten fly problems."
18. Page 27, Low Permeability Work Pad: The Plan states "The site contains sufficient slopes of 3 to 9 percent to facilitate the direction of storm water drainage to the storm water collection system." According to the Plan the last topographic survey was conducted in June 2002. Inspections at this facility since 2002 have identified topographic low areas where ponding occurs. To ensure positive drainage and accurately defined site slopes for storm water flow, a revised survey and site map showing current grades of the work pad area and drainage channels should be provided.
19. Mortality Compost Procedures, the fourth paragraph discusses that after placement of 18-24 inches of suitable material on carcasses they will be driven over with a four-wheel drive tractor, loader or bulldozer. We are not familiar with this method and would appreciate getting additional information on its justification and effectiveness. To eliminate potential large scale problems such as reduction in porosity, discharge of liquids and potential exposure of animal parts the facility may choose to try the aforementioned technique as a pilot.
20. Mortality Composting Procedures: If odors and flies are creating nuisance conditions either onsite or off site, regardless if they are present above "non-mortality composting levels", actions must be taken pursuant to the facility's nuisance control procedures.
21. Poultry Composting: Is it Stromo's intention to compost routine poultry mortalities as described in the attached reference "Composting Catastrophic-Event Poultry Mortalities?"

The additional information and/or clarification requested in the above referenced comments must be provided before the Division can complete its technical review of the Plan.

The Division is authorized to bill for its review of technical submittals, pursuant to 30-20-109(2)(b) at a fee of \$72.47 per hour. An invoice for the Division's technical review of the D&O Plan will be submitted to Stromo under separate cover.

If you have questions regarding this matter, please feel free to contact me at 303-692-3437.

Sincerely,



Roger Doak
Solid Waste Unit
Solid and Hazardous Waste Program

cc: Weld County Planning Dept.
Trevor Jiricek, Weld County Dept. of Public Health & Environment
Ron Ditson, Nature Cycles
Rick Koplitz, WQCD

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